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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------|-------------|----------------------|---------------------|------------------|
| 09/543,223 | 04/05/2000 | Stephen S. Jackson | 2204/A35 | 7263 |
| 34845 | 7590 | 08/25/2005 | EXAMINER | |
| STEUBING AND MCGUINESS & MANARAS LLP | | | PHAN, HANH | |
| 125 NAGOG PARK | | | ART UNIT | PAPER NUMBER |
| ACTON, MA 01720 | | | 2638 | |

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/543,223 | JACKSON ET AL. | |
| | Examiner | Art Unit | |
| | Hanh Phan | 2638 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-11, 13-19 and 21-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Eastmond et al (US Patent No. 5,371,623).

Regarding claims 1, 9, 17 and 47, referring to Figure 3, Eastmond teaches a method of processing a data signal for transmission to a remote device, the method comprising:

synchronizing the data signal with a clock signal to produce a composite signal (i.e., a binary input signal 302, Fig. 3, col. 3, lines 50-67 and col. 4, lines 1-14);

converting the composite signal to an outgoing signal, the outgoing signal being an optical signal (i.e., light emitting diodes LEDs 310, Fig. 3, converting the composite signal to an optical signal);

transmitting a plurality of copies of the outgoing signal, at least two copies of the outgoing signal being transmitted in different directions (col. 2, lines 27-67 and col. 3, lines 1-67 and col. 4, lines 1-27).

Regarding claims 2, 10, 18, 27, 34, 41, Eastmond further teaches the outgoing signal is in the infrared spectrum (Fig. 1).

Regarding claims 3, 11, 19, Eastmond further teaches amplifying the outgoing signal (col. 4, lines 3-14).

Regarding claims 5, 13, 21, 48 and 49, Eastmond further teaches receiving an incoming signal, the incoming signal being an optical signal and having a specified timing signal, the clock signal of the composite signal being synchronized with the specified timing signal (Fig. 3).

Regarding claims 6, 14, 22, 29, 36 and 43, Eastmond further teaches wherein the data signal includes at least one of video data and audio data (Figs 1-3, col. 2, lines 27-52).

Regarding claims 7, 15, 23, 28, 35 and 42, Eastmond further teaches wherein the plurality of copies of the outgoing signal are transmitted through the air (Fig. 3).

Regarding claims 8, 19, 24, 31, 38, 45 and 46, Eastmond further teaches where the different directions overlap (Figs. 1-3).

Regarding claims 25, 30, 32, 37, 39, 44 and 50, referring to Figure 3, Eastmond teaches a method of processing data received from a remote device, the method comprising:

receiving a plurality of copies of a single optical signal, the optical signal being the optical form of a first data signal (Fig. 3);

converting (i.e., photodiodes 322, Fig. 3) the plurality of copies of the optical signal into a plurality of second data signals, each second data signal having data from one of the copies of the optical signal;

storing the plurality of second data signals in memory (Fig. 3); and

reconstructing the first data signal from the plurality of second data signals in memory (see from col. 3, line 49 to col. 6, line 60).

Regarding claims 26, 33 and 40, Eastmond further teaches wherein the act of reconstructing comprises designating one of the plurality of copies of the optical signal as the primary optical signal, the second data signal in memory that represents the primary optical signal being the primary second data signal and retrieving primary second data signal and if the primary second data signal is incomplete, then retrieving additional data of the first data signal from at least one of the other second data signals in memory (see from col. 3, line 49 to col. 6, line 60).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastmond et al (US Patent No. 5,371,623) in view of Rutledge (US Patent No. 5,864,625).

Regarding claims 4, 12 and 20, Eastmond teaches all the aspects of the claimed invention except fails to teach encrypting the composite signal prior to converting it to the outgoing signal. However, Rutledge in US Patent No. 5,864,625 teaches encrypting the composite signal prior to converting it to the outgoing signal (Fig. 1, col. 3, lines 6-67

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and col. 4, lines 1-14). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the encrypting the composite signal prior to converting it to the outgoing signal as taught by Rutledge in the system of Eastmond. One of ordinary skill in the art would have been motivated to do this since Rutledge suggests in column 3, lines 6-67 and col. 4, lines 1-14 that using such the encrypting the composite signal prior to converting it to the outgoing signal have advantage of allowing a secure optical communications link.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


HANH PHAN
PRIMARY EXAMINER